



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

September 30, 1986

Mr. Harvey P. Cahoon
President
Interstate Brick Company
9780 South, 5200 West
West Jordan, Utah 84084

FILE COPY

Dear Mr. Cahoon:

Re: Tentative Approval of Mining and Reclamation Plan, Interstate
Brick Company, Jim Gay Mine, ACT/049/005, Utah County, Utah

The Division has completed the technical review for the Mining and Reclamation Plan for the Jim Gay Clay Mine. Interstate Brick Company's March 20, 1986 response to our December 5, 1985 deficiency letter has been determined adequate and the Division hereby issues tentative approval for the project.

The public notice information will now be forwarded to the local newspaper agency for publishing. Final approval and issuance of a permit to commence mining activities will be granted pending completion of the 30-day public comment period and upon receipt of the reclamation surety bond. The attached bonding summary outlines the Division's requirements for the amount of surety to be posted.

The Division appreciates Interstate Brick's cooperation in completing this permitting activity. Should questions or concerns remain, please contact me or D. Wayne Hedberg of the permitting staff.

Sincerely,

L. P. Braxton
Administrator
Mineral Resource Development
and Reclamation Program

dmw

Enclosures

cc: A. Lowell Decker, BLM, Pony Express R.A.
Marvin Maxwell, State Health
Ken May
Wayne Hedberg
Dave Wham

0457R-61

BOND ESTIMATE SUMMARY FOR THE JIM GAY MINE
INTERSTATE BRICK COMPANY
ACT/049/005

Estimate Updated as of September 1986 - J.R. Harden

BOND ESTIMATE SUMMARY

| | | |
|----|-------------------------------------|-----------|
| A. | Removal of Structures and Equipment | \$ 0 |
| B. | Removal of Trash | \$ 3,010 |
| C. | Revegetation | \$ 25,862 |
| D. | Safety | \$ 16,957 |
| E. | Foundation Elimination | \$ 0 |
| F. | Monitoring | \$ 2,102 |

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| | |
|----------|-----------|
| SUBTOTAL | \$ 47,931 |
|----------|-----------|

Contingency & Contractural @ 10%

| |
|----------|
| \$ 4,793 |
|----------|

TOTAL ESTIMATE IN 1986\$

| |
|-----------|
| \$ 52,724 |
|-----------|

Escalation @ 1.62% per year (MEANS)

TOTAL ESTIMATE IN 1991\$

| |
|-----------|
| \$ 57,135 |
|-----------|

TOTAL BOND AMOUNT REQUIRED

| |
|-----------|
| \$ 57,000 |
|-----------|

0457R-63

UNIT COSTS FOR EQUIPMENT

Equipment costs are based on the Rental Rate Blue Book for Construction Equipment. Labor costs are based on the Means Site Work Cost Data 1986. Other Reclamation work as is required but is not contained in the above references will be cited as they occur.

Total adjusted hourly costs for equipment selected in the estimate are as follows:

1. D-8L DOZER

| | | |
|----------------------------------|-------------|-----------|
| Estimated Total Hours - | 144.6 | |
| Weekly Cost | \$ 4,350.00 | |
| Adjusted Hourly Cost per Hour | | \$ 108.75 |
| Operating Cost per Hour | | \$ 32.10 |
| Operator Cost per Hour | | \$ 29.85 |
| | | ----- |
| TOTAL HOURLY COST FOR D-8L DOZER | | \$ 170.70 |

2. 980C LOADER

| | | |
|-----------------------------------|-------------|-----------|
| Estimated Total Hours - | 42.1 | |
| Weekly Cost | \$ 3,350.00 | |
| Adjusted Hourly Cost per Hour | | \$ 83.75 |
| Operating Cost per Hour | | \$ 28.40 |
| Operator Cost per Hour | | \$ 29.85 |
| | | ----- |
| TOTAL HOURLY COST FOR 980C LOADER | | \$ 142.00 |

OTHER RATES AND COSTS USED

| | | |
|-------------------------|----------|----------|
| Common Laborers (Means) | \$ 23.05 | per hour |
| Supervisors (Means) | \$ 32.20 | per hour |

SEED MIX FOR THE JIM GAY MINE

| SPECIES | PLS/AC | \$/LB PLS | \$/ACRE |
|----------------------------------|--------|-----------|-----------|
| GRASSES: | | | |
| Western Wheatgrass | | | |
| <u>Agropyron smithii</u> | 4.5 | 3.40 | 15.30 |
| Streambank Wheatgrass | | | |
| <u>Agropyron riparium</u> | 4.5 | 4.95 | 22.28 |
| Siberian Wheatgrass | | | |
| <u>Agropyron sibericum</u> | 1.5 | 1.50 | 2.25 |
| Russian Wildrye | | | |
| <u>Elymus junceus</u> | 1.5 | 2.20 | 3.30 |
| Sheep Fescue | | | |
| <u>Festuca ovina</u> | 1.5 | 1.40 | 2.10 |
| Canby Bluegrass | | | |
| <u>Poa canbyi</u> | 1.5 | 3.05 | 4.58 |
| Sand Dropseed | | | |
| <u>Sporobolus cryptandrus</u> | .4 | 6.00 | 2.40 |
| FORBS: | | | |
| Alfalfa | | | |
| <u>Medicago sativa var Ladak</u> | .75 | 1.75 | 1.31 |
| Small Burnet | | | |
| <u>Sanguisorba minor</u> | 1.5 | 1.5 | 2.25 |
| SHRUBS: | | | |
| Wyoming Big Sagebrush | | | |
| <u>Artemisia tridentata</u> | | | |
| <u>ssp wyomingensis</u> | 0.75 | 30.00 | 22.50 |
| Winterfat | | | |
| <u>Ceratoides lanata</u> | 3.0 | 7.50 | 22.50 |
| Gardner Saltbrush | | | |
| <u>Atriplex canescens</u> | 1.5 | 6.00 | 9.00 |
| TOTALS | 23.9 | | \$ 109.77 |
| (As of Sept. 22, 1986 Costs) | | | |
| ===== | | | |

Note - this application rate applies to hand broadcasting.

REVEGETATION COSTS FOR ESTIMATION

For Seed Mix - Use \$ 110.00 per acre for 50.1 acres

FERTILIZATION

For Fertilizer - Use \$ 45.00 per 100 lb

MULCH

None Used

A. Removal of Structures and Equipment

No Structures.

B. Removal of Trash

Equipment - 980C Loader

Productivity - 16 hrs

Cost - 16 hrs x \$ 142.00/hr = \$ 2,272

2 Laborers @ 16 hrs each

Cost - 2 x 16 hrs x \$ 23.05/hr = \$ 738

\$ 3,010
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C. Rock Waste Areas

Existing Dumps and Pad

Equipment - D-8L Dozer

Productivity - 1020 cy/hr

12,125 cy / 1020 cy/hr = 11.9 hrs

Cost - 11.9 hrs x \$ 170.77/hr = \$ 2,032

Scarification of Disturbed Area - 50.1 acres

Equipment - D-8L Dozer w/ drawbar

Productivity - 1.5 ac/hr

50.1 ac / 1.5 ac/hr = 33.4 hrs

Cost - 33.4 hrs x \$ 170.77/hr = \$ 5,704

Topsoil Replacement - 2.5 acres

Equipment - 980C Loader

Productivity - 150 cy/hr

2037 cy / 150 cy/hr = 13.6 hrs

Cost - 13.6 hrs x \$ 142.00/hr = \$ 1,931

Revegetation - 50.1 acres

Equipment (Scarification) - 980C Loader

Productivity - 4.0 ac/hr

50.1 ac / 4.0 ac/hr = 12.5 hrs

Cost - 12.5 hrs x \$ 142.00/hr = \$ 1,775

Equipment (Seeding) - Hand Broadcasting

Productivity - 1.2 ac/hr

50.1 ac / 1.2 ac/hr = 41.8 hrs

Cost - 41.8 hrs x \$ 23.05/hr = \$ 963

Equipment (Fertilizing) - Hand Broadcasting

Productivity - 0.5 ac/hr

50.1 ac / 0.5 ac/hr = 100.2 hrs

Cost - 100.2 hrs x \$ 23.05/hr = \$ 2,310

Seed Mix \$ 110/ac

Cost - 50.1 ac x \$ 110/ac = \$ 5,511

Fertilizer @ \$45/ 100 lb

250 lb/ac x 50.1 ac = 12,525 lb

Cost - 12,525 lb /100 x \$45/100 lb = \$ 5,636

\$ 25,862
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D. Safety

Southern Portion of Pit

Equipment - D-8L Dozer

Productivity - 530 cy/hr

2,200 cy / 530 cy/hr = 4.2 hrs

Cost - 4.2 hrs x \$ 170.77/hr \$ 717

Extreme Northern Slope of Pit

Equipment - D-8L Dozer

Productivity - 530 cy/ hr

7,200 cy / 530 cy/hr = 13.6 hrs

Cost - 13.6 hrs x \$ 170.77/hr \$ 2,322

Within Northern End of Pit

Equipment - D-8L Dozer

Productivity - 530 cy/ hr

43,200 cy / 530 cy/hr = 81.5 hrs

Cost - 81.5 hrs x \$ 170.77/hr \$ 13,918

\$ 16,957
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E. Foundation Elimination

None.

F. Monitoring

Estimated @ 16 hrs per year for 4 yrs

16hrs / yr x 4 yrs = 64 hrs

Cost - 64 hrs x \$ 32.85/hr = \$ 2,102

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SUBTOTAL

\$ 47,931

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Contingency & Contractural @ 10%

\$ 4,793

TOTAL ESTIMATE IN 1986\$

\$ 52,724

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